

Honey Bees in Early America: White Man's Flies – Fact and Fiction

August 8, 2019 [Essays](#), [Historical Background](#), [Life & Times](#) Harry Schenawolf



By Harry Schenawolf, author of the *Shades of Liberty Series* about African American soldiers in the American Revolution.

Like the horse, honey bees were once native to North America. And like the horse, the species died out, only to be reintroduced by Europeans thousands of years later, millions in the case of honey bees. The Spanish brought horses to the North American continent in the early 16th century and about a hundred years later, honey bees followed with Virginia and New England settlers. Carolus Linnaeus (1707-1778) the great presenter of Latin names to all things living and considered the father of modern taxonomy, was responsible for naming the honey bee. *Apis mellifera*, the scientific name for bees, comes from two sources: *apis* is the Latin word for “bee” and *mellifera* is Greek for “honey-bearing,” from the Greek mythology’s demigod Aristaeus, keeper of the bees. Before exploring how honey bees made their way back to North America, let’s lay aside a baker’s dozen of popular myths concerning bees and their presence in America.



Apis mellifera Honey Bee

There were no bees or honey in North America prior to their introduction by Europeans in the early 1600's. Incorrect and Correct. In the world, there are approximately 20,000 species of bees. Four thousand native bee species were present in North America when Europeans first began to settle the continent. However, the native species did not produce honey. Only after the honey bee was brought over by Europeans, was honey to be found throughout America.

Most bees produce honey. No. Of the 20,000 species of bees, only the honey bee produces honey, with one exception, the *Melipona* bee, commonly called the stingless bee. *Apis mellifera* is the domesticated honey bee known around the world and there are seven recognized species. There are also twenty-four distinct 'geographic races', akin to different 'breeds' of dogs. Some of their familiar names include Italian, Russian, Cordovan, Carniolan, and Africanized honey bees. The Italian bees are considered the most docile while the Africanized bees are the most aggressive.



Native

wild bees.

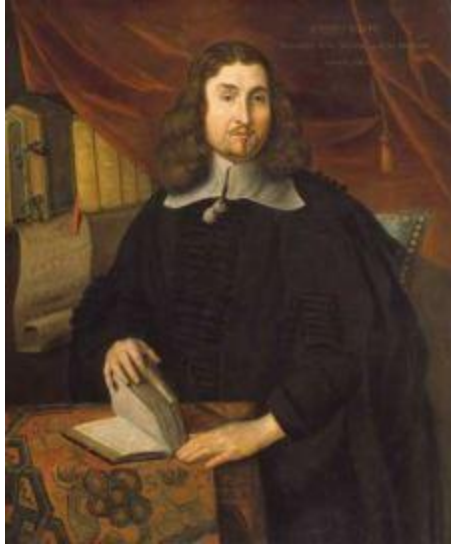
Only honey bees produce honey. Close, but no. As mentioned, of the 20,000 species of bees, only seven species of honey bees produce honey. Yet, prior to the European immigration to America, the Mayans' God, Ah Muzen Cab, was revered for his gift of honey, in a land in which there was no honey bee. How can that be? Because there are 500 native species of *Melipona* bees which are called stingless bees, and they produce honey, though not as prolific as the honey bee. This genus of bees is very diverse and live only within the equatorial regions around the earth. The *Melipona* range in size from smaller than a fruit fly to larger than a honey bee. They are uniquely adapted to the flowers of their local environment and rarely survive outside their native habitat. Vanilla orchids are an example of familiar flowers reliant on *Melipona* bees for pollination.



Melipona beecheii native honey bee in the tropics – only species of native bee to produce honey besides the honey bee.

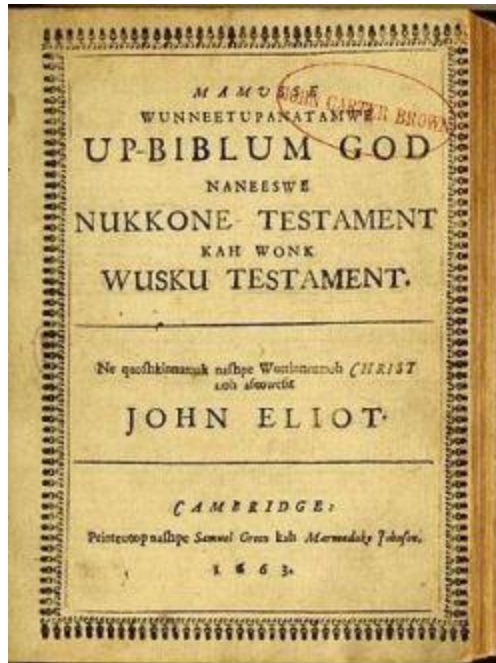
In North America, before the honey bee, flora and flowering fruit trees relied on other insects besides bees to pollinate. Partially true. Other insects besides bees, such as their distant cousin the wasp, pollinated plants for tens of thousands of years. But so too the native bee population of 4,000 species. Though not as furry as honey bees who are able to collect more pollen, native bees still do a pretty good job propagating plant species – especially native pumpkins, blueberries and tomatoes, which honey bees do not pollinate.

Native American ‘Indians’ had never seen bees prior to European immigrants. Not correct. There were 4,000 native bee species throughout North America so it would be difficult for a human not to spot at least one in their lifetime, unless a medical condition hindered their eyesight.



17th century missionary John Eliot, care of the Roxbury Latin School.

Since Native Americans had never seen a honey bee, they had no word for the insect, wax, or honey. As such, they called them “white man’s flies” since they weren’t around until the Europeans showed up. Not quite true as ‘white man’s flies’ is really a ‘white man’s myth.’ Native Americans had seen bees before, hard to miss 4,000 species of bees spread throughout the continent, but not honey bees until the early 16th century. They also had never seen nor tasted honey, for native bees do not produce the sweet byproduct (unless one had traveled south to the tropics where the local Milapon bee makes honey). Therefore, they had no word to describe the honey bee. That didn’t stop a Puritan pastor named John Eliot (1605 – 1690) who is credited for coming up with one. A missionary, he arrived in New England in 1631. He immediately rolled up his sleeves and did what missionaries do best, converted the local ‘savages’ to Christianity. He decided he could be better at his job if he learned the native tongue, but do one better, he would translate the bible into their language.



Title page from John Eliot's Algonquian Indian Bible 1663.

By 1661, after fourteen years of hard labor, Eliot did just that. During his efforts, he also produced a dictionary of sorts of the Algonquin language of Massachusetts, at the same time producing the first published works at the first printing press in America., at Harvard College. He discovered there was no word for honey bee so, being a creative and persistent fellow, he came up with one. It literally meant 'white man's flies' and he assured anyone who asked, that indeed he had heard his Native American translators use the term. Four hundred years later, trivial pursuit games and the internet are full of references to Native Americans referring to the honey bee as 'white man's flies', except that is not the case. Since Eliot's inventive mind came up with the 'Indian term' for honey bees, there are few if any examples of Native Americans actually calling honey bees 'white man's flies', outside a few romantic novels whose covers are graced with shirtless Native America 'hunks' and some historical texts written by 'experts'. Sorry to all those witty folks who have impressed their friends with this quaint 'white man's flies' trivial gem.



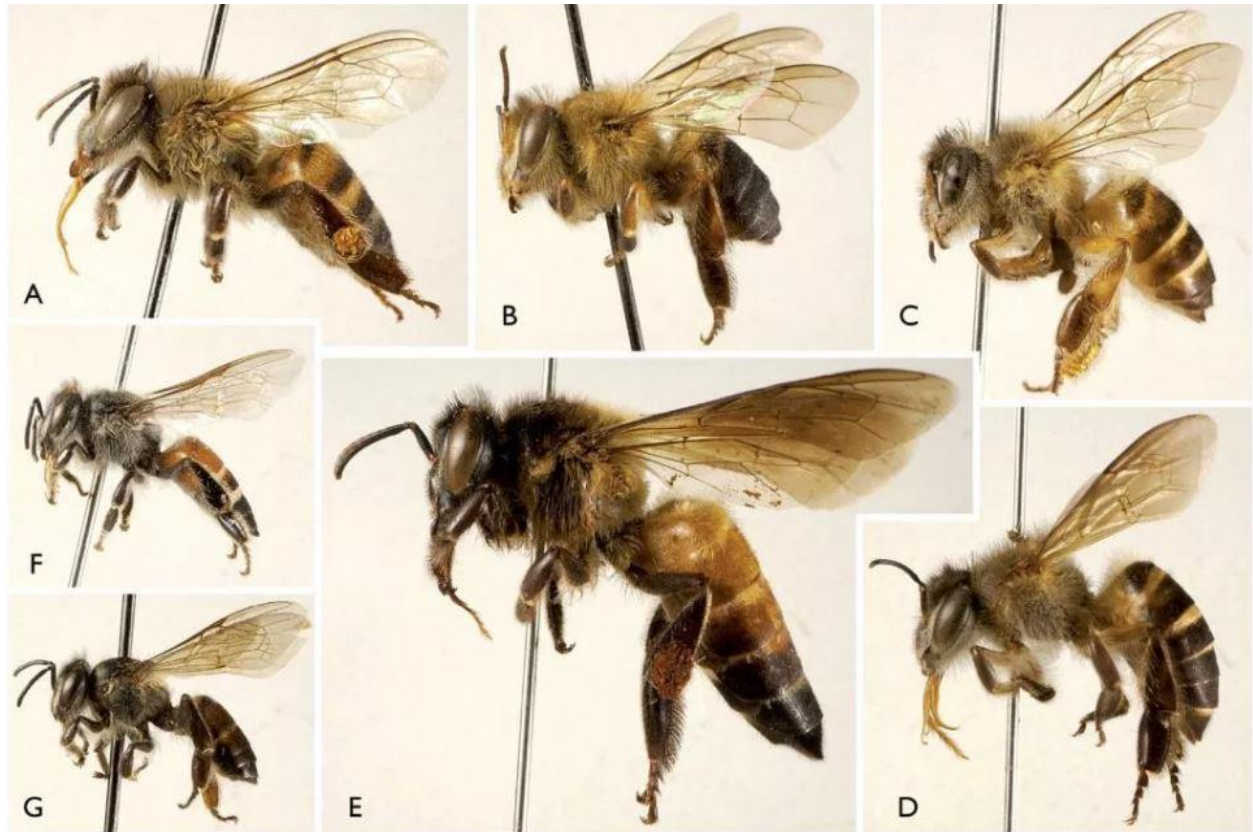
Feral honey bees swarm in woods.

Native North Americans collected wild bee honey found in the woods. Partially true. Native Americans combed the woods, along with colonial settlers, in search of honey bees who had literally ‘flown the coop’ and established hives on their own, far from their farms of origin. However, prior to European settlers who arrived in the early 1600’s, there were no honey bees in North America. Native bees did not make the sweet nectar. So Native American hunting parties who set out in the centuries before the Pilgrims and Jamestown had to settle for just deer and berries.

Honey bees are much more efficient at pollinating plants than native bees. Partially true. A honey bee’s fuzzy exterior can gather more pollen than the less endowed native bees and logically, ‘spread the joy’ to other plants more readily. However, while they don’t form large, honey-making colonies, native indigenous bees are among the most essential pollinators covering natural areas, farms, and gardens. Native bees are often more tolerant of cool or moist conditions and can forage longer into the season, giving them ‘the pollination edge’ over their newly arrived competitors.



For colonial Americans, honey was another substitute for cane sugar, bees being considered an important adjunct of every well-managed provincial farm. Sounds right but not true. Bees wax production did become an important export throughout Virginia by the mid-18th century, however, like milk farms of this day and age, only mega-farms and plantations produced enough to garnish a profit. In 1730, 343,900 pounds of Virginia beeswax was exported to mainly the West Indies and Portugal, calculating at approximately 172,950 hives throughout the providence. Pretty impressive, except all these hives were predominantly in one region of the New World and restricted to large agricultural operations. Wax production records from 1747 – 1758 for Prince George's County, Maryland, right next door to Virginia, mentions only 7% of large estates and for middle- and lower-class farms, the bulk of colonial agriculture, there is no mention whatsoever. Well-managed colonial farms did not have the prerequisite honey producing hives. Some did, but most either bought their honey or found another means of acquiring it. By the mid-1700's, feral honey bees had established multiple hives in the woods and most small-time farmers hunted the hives, as did cave men thousands of years prior, practicing bee 'lining' as it was called, leading to the colloquial term 'making a beeline.'



Honey bees belong to the family Apidae which includes bumblebees, carpenter bees, long horn bees and many other species. The genus *Apis* has been around for 60 million years and today contains seven recognized species of honey bees pictured here: A) *A. mellifera* B) *A. koschevnikovi* C) *A. nigrocincta* D) *A. cerana* E) *A. dorsata* F) *A. florea* G) *A. andreniformis*. Photo by Michael S. Engel, University of Kansas Biodiversity Institute.

If it were not for honey bees, flowers would not bloom, trees would not bear fruit, and many other plants would disappear. Basically no, if but for only a few rare instances. If honey bees were to disappear, flowers would still bloom, trees would continue to bear fruit, and perhaps a few plants might disappear. The early settlers were able to grow their familiar crops for many years before the honey bee finally expanded across this continent. During those years, there was already an abundance of flowers, fruits, and vegetables, with few if any honey bees. Native insects and native or 'wild' bees handled the task of pollination and continue to do so.

All bees produce hives. No. The honey bee and close cousin, the native bumble bee, have the colonial structure necessary to produce a hive. Like humans, they are social animals, meaning they live, raise young, and work together. Within a hive is a queen bee as well as suitors and workers. Native bees, however, are called solitary bees, meaning they live alone and not in hives. They survive in the ground, tree trunks, or the hollow stems of plants. They do not swarm like the social honey bee and are much less likely to sting than honey bees because they are not defending a hive



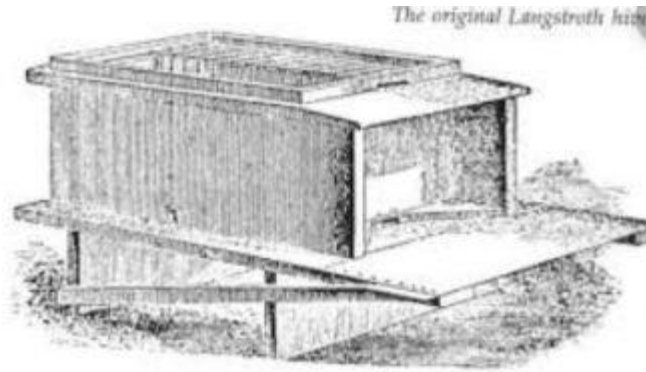
Bumble Bee, like the honey bee, is a social colonizing bee, but non-honey producing.

Bumble bees are like honey bees. Almost. Native bumble bees comprise about 40 species of bees in American and have a formal colonial structure with workers and queens, similar to the honey bee. This social structure allows humans to cultivate them in hives and transport them to where they are needed to pollinate crops. But as a native bee, they do not produce honey. Also, as a native bee, they, like all other non-honey bee species in America, do not suffer from colony collapse disorder, a mysterious condition that has killed off, on average, one-third of domestic honey bee colonies every year since 2006. Some believe the native bees are more immune because they don't suffer from the same pests and viruses as honey bees.



Bee Hunting. Gathering honey and feral bees for new hives.

Early Beehives had to be destroyed along with the loss of the colony just to harvest the wax and honey. Yes and no. Early beehives, such as the ancient Egyptian skep, were not designed to be used past the harvest stage of honey and wax. The honey could not be extracted without destroying the hive and therefore the colony of bees. The solution adopted over time was to produce enough bees to create a swarm. The bees would be caught, the wax and honey would be extracted, ruining the hive, but the captured bees would be introduced to a new hive, providing honey and wax in the following year. If there were not enough bees to swarm, the honey could still be extracted, but with the loss of the colony. Often, if this occurred, the farmer or beekeeper would comb the woods for feral honey bees to take their place. If he hit it just right and the bees were swarming, he could capture enough to establish a new hive for



next year.

This reoccurred for centuries until the ingenuity of Lorenzo Langstroth (1810-1895). A Yale educated American beekeeper; he made a breakthrough discovery. He learned through observation that honey bees would keep a 'bee sized' pathway clear within a hive if it was between 6 and 8 mm wide. He called his discovery 'spazio di ape' or 'bee space'. This realization that bees will not obstruct passages approximately their size, about one-fourth of an inch, led him to patent the 'Langstroth hive.' It was a box that contained frames carefully spaced that could be removed, inspected, the honey gathered, bees attended to, while preventing them from fleeing. His invention revolutionized beekeeping for combs could be removed and honey harvested without destroying the hive, allowing it to carry on for years while growing the apiary.

Honey Bees played a role at a critical time for George Washington and the American Revolution. Yes – if you believe the father of our country deserved a much needed rest. The American army was defeated. Nothing could save it but a bold counterattack against the Hessian garrison at Trenton, New Jersey on Christmas night, December 25, 1776. A weary General Washington waited impatiently while his army was painstakingly transported over the ice clad Delaware River. And that's where the industrious honey bee came in. After crossing the river, and before his horse had reached him, General Washington, seated on a box once used as a beehive, was silent. Undisturbed, his mind must have been filled with anxious thoughts but so too with high resolve, desperate earnestness, and it has been said, with a clear determination to win a victory or die in the attempt. And being winter, and so too that the hive was suppose to be empty, one may assume that the father of our country's derriere was safe from attack by any annoyed honey bees. The rest is history. And speaking of history, back to the bee itself.

Early History of Beekeeping



Discovered 100 years ago in 1919, the Arana (Spider) Cave at Bicorp, near Valencia, Spain.

We're almost to how honeybees made their way back to North America after about a fourteen-million-year lapse. But the early history of bee hunting and keeping is interesting so how about a whirlwind tour? The earliest recordings of our distant ancestors' lives, before written history, can be found in cave dwelling paintings. So too, bees front and center. In 1919, a series of rock paintings were discovered in the Arana (Spider) Cave at Bicorp, near Valencia, Spain. Most of the paintings are of typical hunting scenes dating back to the late Paleolithic times, ten to fifteen thousand years ago. One of these drawings however represented something quite unique.

Two men are distinctly illustration climbing up a rudimentary ladder. One, further along, is stopped by a natural hole in the rock and is holding onto a basket, the handle is clearly seen. Incredibly, the figures painted on the wall around him are a swarm of bees in flight, which have come out of their hive in the hole. Head, abdomen, legs, and extended wings are clearly distinguished on some. The lower man is climbing the ladder, bringing up another basket to collect the honey. There was no such thing as beekeeping in those prehistoric times. Honey hunting for wild bee hives was the way our skin clad ancestors satisfied their crave for sweet tastes. Mankind has done this for thousands of years, right up until present day 'bee lining' hunts in hollowed tree trunks (shoving aside the black bears). This process was still practiced long after mankind finally figured out how to keep a colony of bees close to home through beekeeping.



Antique skep and an old bee smoker.

The earliest methods of beekeeping (apiculture) were recorded on the walls of ancient Egyptian tombs. Sugar was unknown throughout Egypt; therefore, honey was used to sweeten their breads, cakes, beer, and wine. Honey was also used to embalm the dead and bees wax was used as an adhesive to seal the covers of vases. Egyptians captured wild honey bees and created hives out of baskets made from upturned reed baskets. Reliefs on Egyptian tombs illustrated hives stacked like present day beekeeping practices. These early honey producers knew a thing or two about perfecting their product and perhaps even had a basic understanding of pollination. Beekeeping was a migratory occupation; Egyptian beekeepers loaded the basket hives onto small boats that sailed along the Nile in search of blooming flowers from which their tiny servants could draw various types of nectar. The bee was considered sacred and often regarded as a symbol of resurrection. In Egyptian mythology the Sun God, Ra, created the honey bee from his tears. The bee, representing the word bit – meaning “bee” or “honey” in hieroglyphics, was used as a prefix to the throne name of Egyptian rulers. Bee stood for “He of the Bee” or “King of Lower Egypt.”^[1]



Medieval apiary.

Centuries later, the Greeks drew the bee into their mythology. The 'nectar of the Gods', with the king himself, Zeus, being fed honey from sacred bees as an infant. The demigod Aristaeus was the ancient protector of herdsmen and hunters as well as the Greek god of cheesemaking and beekeeping. All eras of ancient civilizations practiced beekeeping. The Roman author Varro wrote of two brothers who had built an apiary entirely around their villa and kept a garden within. He described the process of capturing bees for their hives and the many elixirs they produced from their harvests, including its use as antiseptics. Hebrew and Greek parents named their children Deborah and Melissa, both derived from 'bee'. Beekeeping spread worldwide throughout Asia and Europe and right through the middle ages. Honey became the most important sweetener for food and alcoholic drinks. Beekeepers discovered that by subjecting their bees to particular flora, they could manipulate the honey's taste. In his 1618 book, *A New Orchard and Garden*, William Lawson of London suggested placing hives next to lavender plants in the garden so as to produce "a most fine lavender flavored honey." And within four years of Lawson's text, we have the first documented evidence of honeybees making their grand appearance back onto North American soil.

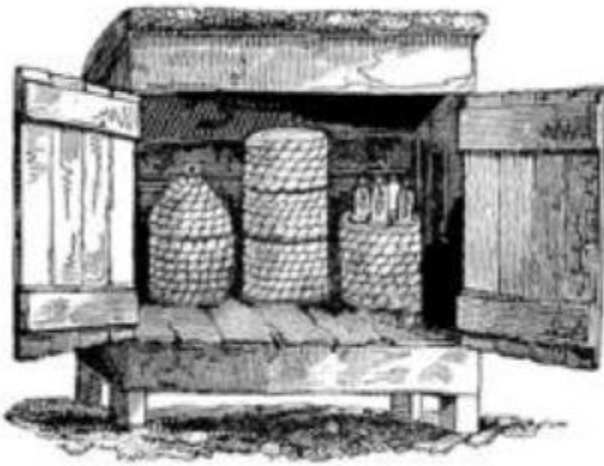
Honey Bees Returned to America, Virginia, 1622.



17th Century Jamestown, Virginia

Though there is no record of honey bees on the Mayflower, the puritans packed so much baggage that there may have been. Just maybe someone forgot to write it down. The only clear evidence of a cargo of honey bees ready for shipment to America occurred a year later. The Council of Virginia Company in London wrote to the governor of Virginia on December 5, 1621 that, "We have by this ship... sent you divers sorte of seed and fruit trees, as also Pidgeons, connies (rabbits), Peacocks and beehives..." *Apis mellifera*, the European Honey Bee, arrived at Jamestown, Virginia aboard ship early the next year, 1622. Three ships arrived from England which could have stored the bees in their hold: the *Discovery* of 60 tons with captain Thomas Jones at the helm left the ports of England in November, 1621 arriving in Virginia in March, the *Bona Nova* of 200 tons captained by John Huddleston, and the *Hopewell* (also known as the *Great Hopewell*) whose ship master was Thomas Smith.

We know that on May 10th, 1632, Providence Rhode Island asked for honey bees to be sent from England, but this request was not fulfilled. Historical documentary sources inform us that from Jamestown the honey bees multiplied and feral swarms spread out. The next recorded event of a successful shipment of honey bees to North America would not occur for another sixteen years. However, even during that short span, the feral honey bee population boomed in the new land and by the mid-17th century, honey bee hunting or 'lining'[\[1\]](#) was a popular activity and would continue to be so well into the 20th century.[\[2\]](#) The second import of honey bees in which there is a record was in 1638 to the Massachusetts colony. Two years later, in Newbury, Massachusetts, a municipal apiary was established.



Records indicate that the first 17th century Virginia apiary was owned by George Pelton, also known as George Strayton. He must have impressed the locals for one wrote to England about his apiary in March, 1648. "For bees there is in the country which thrive and prosper very well there; one Mr. George Pelton, alias, Strayton, an ancient planter^[3] of twenty-five years' standing that had store of them, he made thirty pounds a year profit of them; but by misfortune his house was burnt down, and many of his hives perished, he makes excellent good metheglin, a pleasant and strong drink, and it serves him and his family for good liquor: If men would endeavor to increase this kind of creature, there would be here in a short time abundance of wax and honey, for there is all the country over delicate food for bees, and there is also bees naturally in the land, though we account not of them"

As mentioned earlier in this article, within a hundred years of this letter there was a modest profit obtained from large plantation owners in the export of bees' wax, over 300,000 pounds of wax sent abroad in one year. However, for the small farmer, he did not have the time nor inclination to set up apiaries. It is a myth that most country and wilderness farms within America had their own hives to provide honey and wax. The small country farmer relied on bee hunting or bee lining the feral honey bees to obtain his supply. By the mid-1750's, migrating swarms of feral honey bees arrived in Pennsylvania and Connecticut. By the end of the 17th century, the industrious feral bees had spread and flourished throughout the colonies, pushing northward into New England. They became more common in the middle colonies than New England, no doubt because they were not as accustomed to the cooler temperatures of the north. In Pennsylvania, which had first been colonized by Swedish immigrants, the locals gathered great stores of honey in the woods "where they were free for any Body. Honey, and choice too, is sold in the Capital City for Five Pence per Pound. Wax is also plentiful, cheap, and considerable commerce."

Bees continued to provide honey and wax for human consumption and market. They pollinated the European seeds and saplings that the immigrants brought with them. And they changed the environment (many times in advance of the human immigrants) making it more acceptable to the imported livestock by helping to spread white clover and other English grasses By 1776,

when a group of wealthy statesmen were deciding if they wanted to defy their mother country enough to claim independence, the honey bees had swarmed their way into Michigan so that by 1800, they were in Missouri, Indian, Iowa, and Illinois. It took another twenty years, and the bees made their way past the Mississippi to Arkansas, Oklahoma, and Texas with Wisconsin soon following. In 1848, Mormons arrived in Utah with a stash of honey bees on the back of their wagons. By 1852, honey bees were found in Nevada. Bees finally made their way to California the next year, 1853, but not overland. They did so by a sea route along the East Coast, crossing the Panama, before shipping up the west coast and into California. Therefore, it took 231 years from the time honey bees were first introduced to North America in 1622, until they made their appearance in California in 1853.



Algonquian Warrior, native to New England, by John White, 1585.

Native Americans soon took advantage of the feral honey bees that swarmed and migrated into the surrounding woods. They quickly made good use of this new sweetener and its wax. But, for the most part, they were not beekeepers, but mainly honey hunters of the expanding feral honey bee population that gradually spread throughout the colonies and into the far reaches of the west. As mentioned earlier in this article, Puritan pastor John Eliot, in the mid 1600's, coined the phrase 'white man's bees' when he needed something to describe the honey bee in the Algonquin native tongue, the indigenous people never having experienced bees that made

honey. Though Eliot claimed Native Americans used his invented phrase, 'white man's flies' whenever they spotted honey bees, there is no evidence to back him up. However, over the last four hundred years it has stuck, just google it on the internet. You'll have droves of articles claiming 'Indians' knew they were approaching a white settlement when they spotted the buzzing critters. Hopefully google will be so kind as to include this article in it clutter of information.

Fourteen-Million-Year-Old Honey Bee.

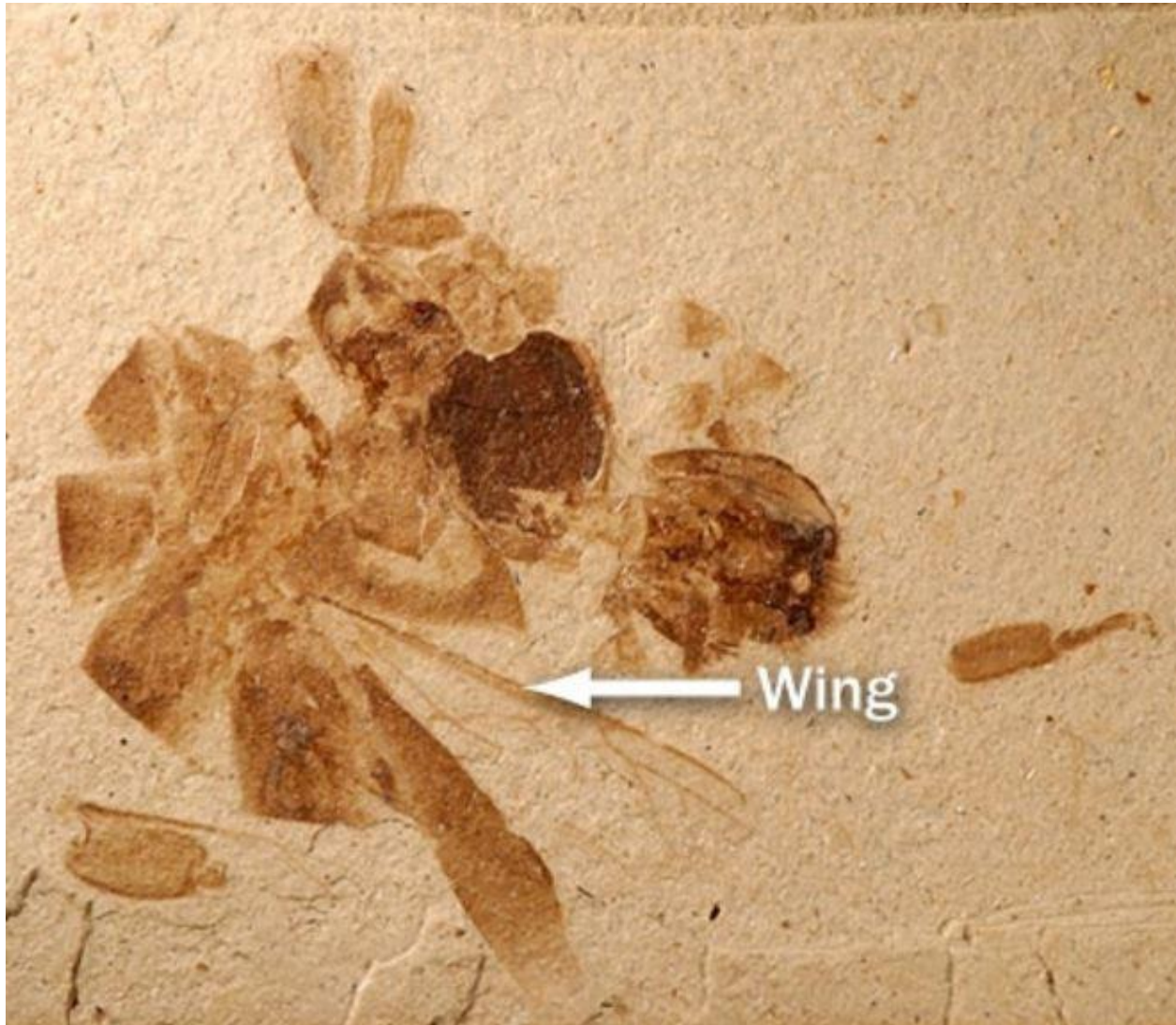


Photo care of Michael S. Engel, University of Kansas Biodiversity Institute

Scientists figure that the bee, and honey bee, have been around for about 100 million years – a spin off from the wasp. Up until 2009, it was well documented that honey bees never existed in North America until the Europeans brought them over in the early 1600's to compete with the native bee population that did not produce honey. That changed when Professor Michael Engle, a paleontologist/entomologist at the University of Kansas, and of course we must mention his

hard-working team, discovered and named the fossilized remains of a female worker bee. It was unearthed in paper shale from Stewart Valley Basin, west-central Nevada. A rough dating of the find places it around mid-Miocene geological epoch (about 14 million years ago). Accordingly, *apis nearctica*, the newly applied name for the find, is definitely a honey bee having hairy eyes, a barbed stinger, and honey bee wing patterns. This particular bee no longer exists.

Researchers say it is most similar to the extinct species *apis armbrusteri zennex* from the Miocene epoch (23 to 5 million years ago) of southwestern Germany. Engle figures that this particular bee became extinct some time ago stating that “honey bees were likely truly absent” from North America during the Pliocene (5.3 to 2.6 million years ago) and Pleistocene (2.6 million to 11,700 years) epochs. So basically, North America remained without honey for about five million years until a ship from England put into port at Jamestown, Virginia. Engle published his research in the May 7, 2009 edition of the Proceedings of the California Academy of Sciences. The original fossilized female worker bee can be found at the California Academy of Sciences, San Francisco.

I dedicate this article to my son Tyson who has taken up the noble art of beekeeping. I will end sipping my coffee, of course with a spoonful of honey, and thank nature for being so kind. Enjoy.

UPDATE: Interesting Trivia About Honey Bees

1. It takes two million flowers to produce a pound of honey and if one bee were to do so, it would have to fly around the globe three times, about 90,000 miles. However, the average bee will not travel nearly as far to produce 1/12 of a teaspoon of honey during its lifetime. Since one teaspoon of honey weighs .015 pounds, one bee produces .00125 pounds or 1.25 thousandth of a pound of honey. Therefore, it takes the lifetime of about 800 bees to provide a pound of honey.
2. A colony of bees can number from 20,000 to 60,000 bees per one queen. Queen bees live up to five years. Worker bees, the majority within the colony, live an average of 6 weeks. Though workers are female, only the queen lays eggs and in the busy summer months, she will lay up to 2,500 per day.
3. Male bees are called drones. They are larger than workers and their only function to the colony is to mate with the queen.
4. For centuries, even to this day, honey has been used for sore throats, digestive disorders, skin problems, hay fever, and as an antiseptic in poultices to treat cuts and burns.
5. Honey bees and the stingless bee of the tropics, *Melipona*, are the only insects that produce a substance mankind considers food. Insects themselves have been eaten as food.
6. A bee's wings beat 11,400 times per minute and in pursuit of nectar, it can travel up to six miles in one day.
7. When worker bees return to the hive, they do a 'waggle dance', indicating to other workers where a good source of nectar is to be found based on the flowers' relation to the sun and hive.

8. The enzymes, minerals, and vitamins in honey is especially healthy. It is the only food source that contains pinocembrin, an antioxidant associated with improving brain function.